



Fall Economic Statement 2018: Issues for Parliamentarians



OFFICE OF THE PARLIAMENTARY BUDGET OFFICER
BUREAU DU DIRECTEUR PARLEMENTAIRE DU BUDGET

Ottawa, Canada
11 December 2018
www.pbo-dpb.gc.ca

The Parliamentary Budget Officer (PBO) supports Parliament by providing economic and financial analysis for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability.

To assist parliamentarians in their pre-budget deliberations, this report highlights key issues arising from the Government's 2018 Fall Economic Statement.

Lead analysts:

Kristina Grinshpoon, Financial Analyst
Tim Scholz, Economic Advisor-Analyst

Contributors:

Tessa Devakos, Research Assistant
Sarah MacPhee, Financial Analyst
Caroline Nicol, Economic Analyst
Jason Stanton, Financial Analyst
Nigel Wodrich, Research Assistant

This report was prepared under the direction of:

Chris Matier, Senior Director
Trevor Shaw, Director

Nancy Beauchamp and Caroline Bernier assisted with the preparation of the report for publication.

For further information, please contact pbo-dpb@parl.gc.ca.

Yves Giroux
Parliamentary Budget Officer

Table of Contents

Executive Summary	1
1. Economic outlook comparison	3
2. Fiscal outlook comparison	4
3. Risks from lower oil prices	6
4. Non-announced measures	8
5. The Government's fiscal anchors	9
6. Budget-Estimates alignment	11
7. Timeliness of financial reporting	12
Appendices	14
A: Fall Economic Statement and PBO economic outlook comparison	15
B: Detailed economic impacts of US\$15/barrel decline in oil prices	16
C: Fiscal impacts of US\$15/barrel decline in oil prices	17
D: Detailed economic impacts of US\$5/barrel decrease in WTI-WCS differential	18
E: Fiscal impacts of US\$5/barrel decrease in WTI-WCS differential	19
Notes	20

Executive Summary

To assist parliamentarians in their pre-budget deliberations, this report identifies key issues arising from the Government's Fall Economic Statement published on 21 November 2018.

Economic outlook

PBO judges that there is downside risk to the private sector outlook for nominal GDP over 2021 to 2023. PBO's outlook for nominal GDP is \$16 billion lower, on average, over 2021 to 2023 compared to the private sector outlook in the Fall Economic Statement.

Fiscal outlook

When put on a comparable basis, projected budgetary deficits in PBO's October Economic and Fiscal Outlook are \$8.0 billion (0.4 per cent of GDP) larger, on average, over 2018-19 to 2023-24 compared to the Fall Economic Statement. Incorporating the Government's annual \$3 billion risk adjustment narrows this difference to \$5 billion. Key discrepancies are attributable to lower income tax revenues (\$3.0 billion per year) and GST revenues (\$1.0 billion per year), as well as higher operating expenses (\$2.4 billion per year).

Unfortunately, Finance Canada does not quantify the underlying components of its operating expense forecast, making it difficult to reconcile between the two outlooks for this category. Parliamentarians may wish to seek a more detailed and quantifiable breakdown of the major cost components within operating expenses in the Fall Economic Statement.

Risks from lower oil prices

Given their recent sharp decline, lower oil prices, in our view, pose a downside risk to the economic and fiscal outlook. Based on recent oil price futures, the price of West Texas Intermediate (WTI) is approximately US\$15 per barrel lower, on average, over 2019 to 2023 compared to the forecast in the Fall Economic Statement. We estimate that a reduction in oil prices of this magnitude would lower nominal GDP by \$37 billion annually, on average, over 2019 to 2023 and reduce the budgetary balance by \$3.5 billion per year, on average, over 2019-20 to 2023-24.

Non-announced measures

Fall Economic Statement 2018 includes a total of \$9.5 billion in non-announced measures over 2018-19 to 2023-24. There are legitimate and varied rationales for not announcing specific measures.

That said, given their unprecedented magnitude and fiscal materiality, parliamentarians may wish to seek quantifiable details regarding the spending envelopes underlying the \$9.5 billion in non-announced measures in the Fall Economic Statement, particularly total amounts allocated to future Cabinet funding decisions.

The Government's fiscal anchors

PBO has been monitoring the Government's progress toward meeting the two fiscal anchors it identified in 2015: balancing the budget in 2019-20 and continuing to reduce the federal debt-to-GDP ratio throughout its mandate.

In October 2018, we estimated that, without further policy actions, there was a near-zero likelihood that the Government would balance the budget in 2019-20 and an 80 per cent likelihood that the federal debt ratio would be below the Government's anchor of 31.8 per cent of GDP in 2020-21. That said, the Government continues to report on balancing the budget in 2019-20, indicating that "progress was made" and that the Government is "facing challenges".

Parliamentarians may wish to request regular and realistic reporting on the Government's progress against consistent and measurable fiscal anchors in its budgets and Fall Economic Statements.

Budget-Estimates alignment

With the creation of the Treasury Board Central Vote 40, Parliament was asked to provide authority to spend on many measures that were announced in Budget 2018 which had not yet gone through the scrutiny of the Treasury Board submission process. In doing so, Parliamentarians' ability to scrutinize and oversee government spending has been reduced. Evidence suggests that these procedural changes have not accelerated the Government's implementation of budget measures.

Timeliness of financial reporting

Canada lags both its provincial and international peers in terms of the timeliness of publishing its annual financial statements. To ensure more timely reporting, one of the International Monetary Fund's recommendations is that governments publish financial statements both as audited and unaudited documents.

To help inform Parliament and Canadians earlier on the Government's year-end financial position, parliamentarians may wish to request that the Government publish the Annual Financial Report unaudited within three months of the close of the fiscal year.

1. Economic outlook comparison

The economic outlook presented in the Fall Economic Statement (FES) is based on Finance Canada's September 2018 survey of private sector forecasters. Table 1-1 compares the private sector forecast of nominal GDP and PBO's October 2018 projection. Appendix A provides a more detailed comparison to our economic outlook.

Table 1-1 Nominal GDP outlook comparison

	2018	2019	2020	2021	2022	2023
Nominal GDP (\$ billions)						
Fall Economic Statement	2,228	2,318	2,395	2,484	2,583	2,684
PBO October 2018	2,224	2,314	2,395	2,477	2,567	2,658
	4	4	0	7	16	26

Sources: Finance Canada and Parliamentary Budget Officer.

Note: PBO's nominal GDP projection has been restated to reflect Statistics Canada's historical revisions to the Canadian GDP series for 2017 released on 8 November 2018.

The private sector outlook for nominal GDP is \$16 billion higher, on average, over 2021 to 2023 compared to PBO's outlook. This difference is primarily due to our outlook for lower real GDP growth, particularly in 2022 and 2023 (Table 1-2). This reflects, in part, the private sector outlook for employment growth, which is 0.25 percentage points higher, on average, over 2021 to 2023 compared to our October 2018 projection.¹

Table 1-2 Real GDP growth outlook comparison

	2018	2019	2020	2021	2022	2023
Real GDP growth (%)						
Fall Economic Statement	2.0	2.0	1.6	1.6	1.9	1.9
PBO October 2018	2.1	1.8	1.5	1.5	1.5	1.5
	-0.1	0.2	0.1	0.1	0.4	0.4

Sources: Finance Canada and Parliamentary Budget Officer.

Notwithstanding the recent decline in oil prices, which we discuss in Section 3, PBO judges that there is downside risk to the private sector outlook for nominal GDP over 2021 to 2023.

2. Fiscal outlook comparison

When put on a comparable basis, projected budgetary deficits in PBO's October Economic and Fiscal Outlook are \$8.0 billion (0.4 per cent of GDP) larger, on average, over 2018-19 to 2023-24 compared to the Fall Economic Statement (Table 2-1). Incorporating the Government's annual \$3 billion risk adjustment narrows this difference to \$5 billion. Key discrepancies are attributable to lower income tax revenues (\$3.0 billion per year) and GST revenues (\$1.0 billion per year), as well as higher operating expenses (\$2.4 billion per year).

Table 2-1 Budgetary balance outlook comparison

\$ billions	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2022- 2023	2023- 2024
Budgetary balance in FES	-18.1	-19.6	-18.1	-15.1	-12.6	-11.4
Policy actions since Budget 2018	4.0	7.1	6.2	5.7	4.7	5.2
Adjustment for risk	3.0	3.0	3.0	3.0	3.0	3.0
FES budgetary balance, without policy actions and risk adjustment	-11.2	-9.5	-9.0	-6.4	-4.9	-3.2
PBO October 2018 budgetary balance, without policy actions	-19.2	-20.9	-17.0	-14.6	-11.1	-9.2
Difference	8.0	11.5	8.0	8.2	6.2	6.0

Sources: Finance Canada and Parliamentary Budget Officer.

Note: FES denotes Fall Economic Statement.

Finance Canada's forecast for both personal and corporate income tax revenues (PIT and CIT, respectively) are higher than PBO's projections by \$1.3 billion annually, on average, over the medium term. In the FES, Finance Canada revised up its forecasts of PIT and CIT revenues by \$1.5 billion per year.

The FES noted that PIT revenues were revised higher due to "better-than-expected 2017-18 results as well as strong 2018-19 year-to-date results that are expected to carry forward." Finance's CIT revenue outlook was revised higher due to "stronger-than-expected corporate profits."

Finance Canada's forecast for operating expenses are lower than PBO estimates by \$2.4 billion per year, on average, over the 2018-19 to 2023-24. Relative to Budget 2018, Finance Canada has increased its outlook for operating expenses by \$2.9 billion in 2018-19 and \$1.0 billion per year, on average, through 2023-24.

Finance Canada indicates that its higher operating expense outlook “primarily reflects higher pension and benefits expenses due to lower projected long-term interest rates in those years, relative to Budget 2018, which results in actuarial losses.” Unfortunately, Finance Canada does not quantify projections of pension and benefits expenses, nor any other underlying component of its operating expense forecast. Consequently, we are unable to reconcile differences in our outlooks for operating expenses.

Parliamentarians may wish to seek a more detailed and quantifiable breakdown of the major cost components within operating expenses in the Fall Economic Statement.

3. Risks from lower oil prices

In our view, lower crude oil prices represent a downside risk to the economic and fiscal outlook presented in the Fall Economic Statement. Based on recent oil price futures, the outlook for West Texas Intermediate (WTI) is US\$15 per barrel lower, on average, over 2019 to 2023 compared to the private sector outlook in the Fall Economic Statement.

Table 3-1 presents estimates of the impacts of lower oil prices on nominal GDP and the budgetary balance (see Appendices B and C for additional detail).² We estimate that a reduction in oil prices of US\$15 per barrel would lower nominal GDP by \$37 billion annually, on average, over 2019 to 2023 and reduce the budgetary balance by \$3.5 billion per year, on average, over 2019-20 to 2023-24.³

Table 3-1 Estimated impact of US\$15/barrel decline in oil prices

	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2022- 2023	2023- 2024
Fall Economic Statement						
WTI (\$US/barrel)	67	68	65	65	68	71
WCS* (\$US/barrel)	38	38	37	37	40	43
WTI-WCS differential* (\$US/barrel)	-29	-30	-28	-28	-28	-28
Difference vs. Fall Economic Statement						
WTI (\$US/barrel)	-3.8	-15.0	-15.0	-15.0	-15.0	-15.0
WCS (\$US/barrel)	-3.8	-15.0	-15.0	-15.0	-15.0	-15.0
WTI-WCS differential (\$US/barrel)	0.0	0.0	0.0	0.0	0.0	0.0
Nominal GDP (\$ billions)	-6.1	-33.3	-35.8	-38.5	-39.3	-39.5
Budgetary balance (\$ billions)	-1.0	-2.9	-3.9	-3.9	-3.6	-3.3

Sources: Finance Canada and Parliamentary Budget Officer.

Note: The shock begins in 2018Q4. Economic impacts are presented on a calendar year basis, while fiscal impacts are presented on a fiscal-year basis, based on PBO's October Economic and Fiscal Outlook.

* The forecast for WCS oil prices was derived applying the WTI-WCS discount in PBO's October outlook to the WTI oil price forecast in the FES.

Changes in the price of Canadian oil, for example Western Canadian Select (WCS), relative to global benchmarks can also have material economic consequences.

We provide an illustrative scenario of the potential impact of a permanent decrease in the WTI-WCS differential from projected levels.⁴ Table 3-2 shows that a permanent decrease in the WTI-WCS differential by US\$5 per barrel would increase nominal GDP by \$6.0 billion annually, on average, over 2019

to 2023. Consequently, the budgetary balance would increase by \$0.6 billion annually over 2019-20 to 2023-24. See Appendices D and E for additional detail.

Table 3-2 **Estimated impact of US\$5/barrel decrease in WTI-WCS differential**

	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2022- 2023	2023- 2024
Fall Economic Statement						
WTI (\$US/barrel)	67	68	65	65	68	71
WCS* (\$US/barrel)	38	38	37	37	40	43
WTI-WCS differential* (\$US/barrel)	-29	-30	-28	-28	-28	-28
Difference vs. Fall Economic Statement						
WTI (\$US/barrel)	0.0	0.0	0.0	0.0	0.0	0.0
WCS (\$US/barrel)	1.3	5.0	5.0	5.0	5.0	5.0
WTI-WCS differential (\$US/barrel)	-1.3	-5.0	-5.0	-5.0	-5.0	-5.0
Nominal GDP (\$ billions)	1.0	5.1	5.5	6.3	6.6	6.7
Budgetary balance (\$ billions)	0.2	0.5	0.6	0.7	0.6	0.6

Sources: Finance Canada and Parliamentary Budget Officer.

Note: The shock begins in 2018Q4. Economic impacts are presented on a calendar year basis, while fiscal impacts are presented on a fiscal-year basis, based on PBO's October Economic and Fiscal Outlook.

* The forecast for WCS oil prices was derived applying the WTI-WCS discount in PBO's October outlook to the WTI oil price forecast in the FES.

4. Non-announced measures

The 2018 Fall Economic Statement reports on the net fiscal impact of non-announced measures in Table A1.7 (page 107). Finance Canada states that these measures include “provisions for anticipated Cabinet decisions not yet made and funding decisions related to national security, commercial sensitivity, trade agreements, and litigation issues.”

Finance Canada began reporting non-announced measures in the 2016 Fall Economic Statement. Explicit reporting of these measures is an improvement upon prior practice, under which unannounced measures were included with other fiscal developments.

That said, the IMF Manual on Fiscal Transparency recommends that changes to the budget outlook “should incorporate estimates of the separate impact of each new program on revenue and expenditure [to provide] a clear picture of the factors that may cause budget outcomes to diverge from planned spending and thus improve accountability for fiscal policy implementation.”⁵

The \$9.5 billion in non-announced measures in FES 2018 are more than a threefold increase relative to any prior year and have a material impact on the outlook for the budgetary balance (Table 4-1). Because these are shown as net fiscal impacts, such measures could include taxes or fee increases that would partially offset additional expenditures. Absent additional details, these amounts make it difficult to evaluate actual spending relative to budget plans.

Given their materiality and unprecedented magnitude, Parliamentarians may wish to seek quantifiable details regarding the spending envelopes underlying the \$9.5 billion in non-announced measures in the Fall Economic Statement, particularly the total amounts allocated to future Cabinet funding decisions.

Table 4-1 Non-announced measures

\$ millions	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2022- 2023	2023- 2024	Total
2016 FES	54	291	268	130	217	189			1,151
2017 Budget	-900	300	300	200	300	100			300
2017 FES		611	114	707	610	449	377		2,868
2018 Budget		1,263	-8	-1,711	-1,424	-1,221	254		-2,845
2018 FES			1,754	527	541	2,090	1,849	2,777	9,538

Sources: Finance Canada and Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

5. The Government's fiscal anchors

The 12 November 2015 mandate letter from the Prime Minister identified meeting the Government's fiscal anchors as one of the top priorities for the Minister of Finance:

Ensure that our fiscal plan is sustainable by meeting our fiscal anchors of balancing the budget in 2019/20 and continuing to reduce the federal debt-to-GDP ratio throughout our mandate.

The Government has inconsistently reported on progress toward meeting these two fiscal anchors in budgets and Fall Economic Statements. Moreover, important details have been removed, redefined and reintroduced.

In Budget 2016, the Government redefined its fiscal anchors to "returning to balanced budgets" at an unspecified date and committed to reduce the federal debt-to-GDP ratio "to a lower level over a five-year period, ending in 2020-21".

In the 2018 Fall Economic Statement, the Government recommitted to a "balanced budget in 2019-20" and again redefined its debt anchor as "continue to reduce the federal debt-to-Gross Domestic Product ratio".

Consistency and measurability are essential qualities of credible fiscal anchors. Hence, PBO has regularly monitored the Government's progress toward meeting the same two public, measurable and time-specific anchors (Table 5-1). In October 2018, we estimated that without further policy actions there was a near-zero likelihood that the Government would balance the budget in 2019-20 and an 80 per cent likelihood that the federal debt ratio would be below the Government's anchor of 31.8 per cent of GDP in 2020-21.

The Government's reporting on achieving its fiscal anchors states that "progress was made, facing challenges" with respect to balancing the budget in 2019-20. This is a mischaracterization given the remote possibility of achieving balance in that year.

Parliamentarians may wish to request regular and realistic reporting on the Government's progress against consistent and measurable fiscal anchors in its budgets and Fall Economic Statements.

Table 5-1 **Assessment of progress toward meeting fiscal anchors**

Fiscal anchor	Status	
	Government assessment	PBO estimated likelihood
Balance the budget in 2019-20	Actions taken, progress made, facing challenges	Nil
Federal debt-to-GDP below 31.8 per cent in 2020-21	Actions taken, progress made	80%
Sources:	Finance Canada and Parliamentary Budget Officer.	
Note:	The Government committed to "balance the budget in 2019-20" in the Minister of Finance's mandate letter. It committed to reducing the federal debt-to-GDP to below 31.8 per cent in 2020-21 in Budget 2016.	

6. Budget-Estimates alignment

In FES 2018, the Government reiterated that new Treasury Board-managed central vote, TB vote 40, improves “the alignment of the Budget and the Main Estimates and making the planning, spending, tracking and reporting of tax dollars more transparent.”⁶

These changes included:

- Delaying the tabling of the Main Estimates to contain measures announced in the budget; and,
- Creating a new central vote within the Treasury Board of Canada Secretariat (TBS), Treasury Board Central Vote 40, to more rapidly roll-out Budget 2018 measures⁷.

Prior to these changes, the standard process was that all funding presented to Parliament had already gone through the scrutiny of the Treasury Board submission process and approved by the Treasury Board (TB).

With the creation of TB Vote 40, Parliament was asked to provide authority prior to the majority of measures going through this scrutiny. Therefore, Parliamentarians’ ability to scrutinize and oversee government spending on these new budget measures has been reduced without leading to faster implementation of budget measures⁸.

7. Timeliness of financial reporting

The Government publishes two annual financial statements. The first is the Public Accounts, which is an audited and comprehensive report of the Government's consolidated financial statement. The second is the Annual Financial Report, which is also audited, but provides a condensed and more visual representation of the Public Accounts. The Government generally publishes the Annual Financial Report about 20 days prior to the publication of the Public Accounts.

This year, the *Annual Financial Report* and *Public Accounts of Canada 2018* were tabled on October 19, more than six months after the close of the fiscal year (March 31).⁹

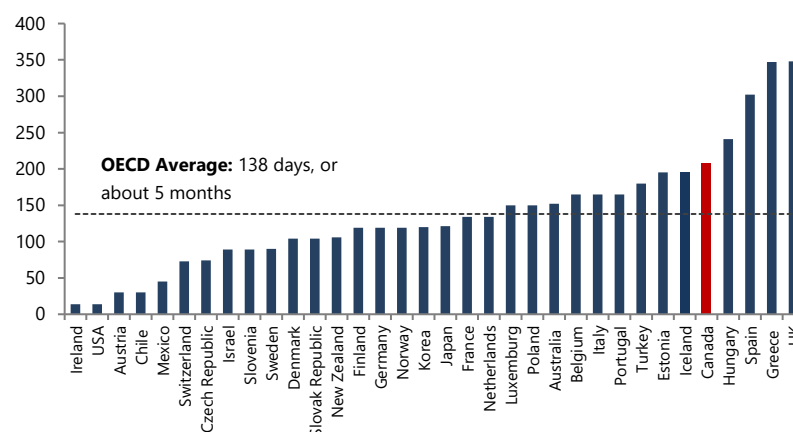
The federal public accounts are published later than most provincial public accounts, with more than half of the provinces publishing their respective public accounts within six months.¹⁰ Leading practice is in the Government of Alberta, which published its public accounts at the end of June, three months following the close of the fiscal year.¹¹

Canada also lags its international peers. Since 1995, the federal government has generally published its financial statements in October, ranking Canada 30th among OECD member countries in publication timeliness (Figure 7-1).^{12,13}

Figure 7-1

Timeliness of annual financial statements

Days until publication, following the end of the fiscal year



Sources: OECD International Budget Practices and Procedures Database and Parliamentary Budget Officer.

Note: The number of days until publication for Canada is an average of the last 24 fiscal years from 1994-95 to 2017-18.

Canada falls short of the standard for advanced practice in the International Monetary Fund's (IMF) financial reporting guidelines, which requires governments to publish their annual financial reports within six months (September 30 in Canada's case).¹⁴ More than 75 per cent of the OECD member countries meet the IMF standard, along with more than 40 per cent of the 115 countries surveyed by the International Budget Partnership (IBP).¹⁵

The IMF's *Fiscal Transparency Handbook* suggests that to meet its six-month standard for advanced practice, governments need to communicate and cooperate regularly with the auditor in preparation of the annual accounts. For example, preparing the annual accounts within three months, and allowing up to three months for the auditor to examine the document and discuss any omissions, errors, or irregularities would permit the Government to meet the six-month standard. To avoid delays the auditor may also perform a concurrent audit of financial transactions even before the closure of the annual accounts.

The IMF also recommends that to ensure timely reporting, financial statements should be published both as unaudited and audited documents.

PBO believes that expedited financial reporting by the Government is feasible. Parliamentarians may wish to request that the Government publish its Annual Financial Report unaudited within three months of the close of the fiscal year. This would inform Parliament and Canadians several months earlier on Canada's year-end financial position, providing parliamentarians with more time for ex-post financial scrutiny and better information for assessing the Government's budget plans and estimates.

Moreover, this will be particularly important in 2019 to provide political parties and Canadians with an accurate picture of the Government's finances before casting their ballot in the 2019 election.

Appendices

A: Fall Economic Statement and PBO economic outlook comparison

% unless otherwise indicated		2018	2019	2020	2021	2022	2023
Real GDP growth							
	PBO October 2018	2.1	1.8	1.5	1.5	1.5	1.5
	Fall Economic Statement 2018	2.0	2.0	1.6	1.6	1.9	1.9
GDP inflation							
	PBO October 2018	1.9	2.2	2.0	1.9	2.1	2.0
	Fall Economic Statement 2018	2.2	2.1	1.7	2.0	2.0	2.0
Nominal GDP growth							
	PBO October 2018	4.0	4.0	3.5	3.4	3.6	3.6
	Fall Economic Statement 2018	4.2	4.1	3.3	3.7	4.0	3.9
Nominal GDP (\$ billions)							
	PBO October 2018	2,224	2,314	2,395	2,477	2,567	2,658
	Fall Economic Statement 2018	2,228	2,318	2,395	2,484	2,583	2,684
3-month treasury rate							
	PBO October 2018	1.4	2.3	3.0	3.0	3.0	3.0
	Fall Economic Statement 2018	1.4	2.1	2.4	2.4	2.4	2.6
10-year government bond rate							
	PBO October 2018	2.3	3.3	4.0	4.0	4.0	4.0
	Fall Economic Statement 2018	2.3	2.8	3.0	3.1	3.2	3.3
Exchange rate (US cents/C\$)							
	PBO October 2018	77.6	77.6	77.4	77.1	77.1	77.1
	Fall Economic Statement 2018	77.6	78.4	78.7	79.5	80.2	81.1
Unemployment rate							
	PBO October 2018	5.9	6.0	5.8	5.7	5.7	5.6
	Fall Economic Statement 2018	5.9	5.8	6.0	6.1	6.0	6.0
CPI inflation							
	PBO October 2018	2.2	2.1	2.1	2.1	2.1	2.1
	Fall Economic Statement 2018	2.4	2.1	1.9	1.9	2.0	2.0
U.S. real GDP growth							
	PBO October 2018	2.9	2.6	1.8	1.8	1.8	1.8
	Fall Economic Statement 2018	2.8	2.5	1.8	1.8	2.0	1.9
WTI oil price (\$US/barrel)							
	PBO October 2018	68	71	68	67	69	70
	Fall Economic Statement 2018	67	68	65	65	68	71

Sources: Finance Canada and Parliamentary Budget Officer.

Note: PBO's nominal GDP projection has been restated to reflect Statistics Canada's historical revisions to the Canadian GDP series for 2017 released on 8 November 2018.

B: Detailed economic impacts of US\$15/barrel decline in oil prices

	2018	2019	2020	2021	2022	2023
Output						
Nominal GDP (\$ billions)	-6.1	-33.3	-35.8	-38.5	-39.3	-39.5
Nominal GDP (%)	-0.3	-1.4	-1.5	-1.5	-1.5	-1.5
GDP price deflator (%)	-0.3	-1.2	-1.2	-1.2	-1.1	-1.1
Real GDP (%)	0.0	-0.2	-0.3	-0.4	-0.4	-0.4
Contributions to percentage point change in real GDP growth						
Household consumption	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Housing	0.0	-0.1	0.0	0.1	0.0	0.0
Business investment	0.0	-0.4	-0.1	0.0	0.1	0.2
Net exports	0.0	0.3	0.2	0.0	0.0	0.0
Other economic indicators						
Consumer price inflation (%)	-0.1	-0.4	-0.3	-0.3	-0.2	-0.2
Employment (000s)	0.0	-9.9	-11.6	-9.2	-3.2	4.7
Hourly wage rate (%)	0.0	-0.2	-0.7	-1.0	-1.2	-1.3
Housing prices (%)	-0.2	-0.9	-0.7	-0.7	-0.8	-0.9
Household net worth (%)	-0.5	-2.2	-2.7	-3.3	-4.0	-4.7
Corporate profits (%)	-2.2	-9.8	-7.2	-5.5	-3.6	-2.2
Terms of trade (%)	-0.8	-3.5	-3.8	-3.8	-3.8	-3.7
Canadian dollar (US cents)	0.1	-0.7	-2.9	-4.0	-4.4	-4.5
West Texas Intermediate (\$US/barrel)	-3.8	-15.0	-15.0	-15.0	-15.0	-15.0
Western Canadian Select (\$US/barrel)	-3.8	-15.0	-15.0	-15.0	-15.0	-15.0
Business confidence (%)	-1.2	-2.2	-0.2	0.0	0.0	0.0

Source: Parliamentary Budget Officer.

Note: The shock begins in 2018Q4. We assume no monetary policy response.

C: Fiscal impacts of US\$15/barrel decline in oil prices

\$ billions	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2022- 2023	2023- 2024
Income taxes						
Personal income tax	0.0	-0.7	-1.3	-1.7	-2.0	-2.2
Corporate income tax	-1.0	-2.3	-2.6	-2.4	-2.0	-1.4
Non-resident income tax	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Total income tax	-1.0	-3.1	-4.1	-4.3	-4.1	-3.7
Excise taxes/duties						
Goods and Services Tax	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5
Custom import duties	0.0	0.0	0.0	0.1	0.1	0.1
Other excise taxes/duties	0.0	0.1	0.1	0.2	0.2	0.3
Total excise taxes/duties	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
EI premium revenues	0.0	-0.1	-0.3	-0.3	-0.3	-0.3
Other revenues	-0.1	-0.3	-0.3	-0.3	-0.3	-0.3
Total budgetary revenues	-1.3	-3.8	-5.1	-5.4	-5.4	-5.1
Major transfers to persons						
Elderly benefits	-0.1	-0.2	-0.2	-0.2	-0.3	-0.4
Employment Insurance benefits	0.0	0.0	-0.1	-0.2	-0.3	-0.3
Children's benefits	0.0	0.0	0.0	0.0	0.0	0.0
Total	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6
Major transfers to other levels of government						
Canada Health Transfer	0.0	0.0	-0.2	-0.5	-0.7	-0.7
Canada Social Transfer	0.0	0.0	0.0	0.0	0.0	0.0
Equalization	0.0	0.0	-0.1	-0.2	-0.3	-0.3
Territorial Formula Financing	0.0	0.0	0.0	0.0	0.0	0.0
Gas Tax Fund	0.0	0.0	0.0	0.0	0.0	0.0
Home care and mental health	0.0	0.0	0.0	0.0	0.0	0.0
Other fiscal arrangements	0.0	0.0	0.0	0.1	0.1	0.1
Total	0.0	0.0	-0.3	-0.6	-0.9	-1.0
Direct program expenses	-0.1	-0.4	-0.4	-0.4	-0.3	-0.3
Public debt charges	0.0	0.0	0.1	0.2	0.3	0.5
Total expenses	-0.3	-0.6	-0.9	-1.1	-1.3	-1.3
Budgetary balance	-1.0	-2.9	-3.9	-3.9	-3.6	-3.3

Source: Parliamentary Budget Officer.

D: Detailed economic impacts of US\$5/barrel decrease in WTI-WCS differential

	2018	2019	2020	2021	2022	2023
Output						
Nominal GDP (\$ billions)	1.0	5.1	5.5	6.3	6.6	6.7
Nominal GDP (%)	0.0	0.2	0.2	0.3	0.3	0.3
GDP price deflator (%)	0.0	0.2	0.2	0.2	0.2	0.2
Real GDP (%)	0.0	0.0	0.1	0.1	0.1	0.1
Other economic indicators						
Consumer price inflation (%)	0.0	0.1	0.0	0.0	0.0	0.0
Employment (000s)	0.0	1.5	2.3	2.7	2.3	1.2
Hourly wage rate (%)	0.0	0.0	0.1	0.2	0.2	0.2
Housing prices (%)	0.0	0.1	0.1	0.1	0.1	0.2
Household net worth (%)	0.1	0.3	0.4	0.5	0.7	0.8
Corporate profits (%)	0.4	1.5	1.1	0.9	0.7	0.5
Terms of trade (%)	0.1	0.5	0.6	0.6	0.6	0.6
Canadian dollar (US cents)	0.0	0.1	0.4	0.5	0.6	0.6
West Texas Intermediate (\$US/barrel)	0.0	0.0	0.0	0.0	0.0	0.0
Western Canadian Select (\$US/barrel)	1.3	5.0	5.0	5.0	5.0	5.0
Business confidence (%)	0.2	0.3	0.0	0.0	0.0	0.0

Source: Parliamentary Budget Officer.

Note: The shock begins in 2018Q4. We assume no monetary policy response.

E: Fiscal impacts of US\$5/barrel decrease in WTI-WCS differential

\$ billions	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2022- 2023	2023- 2024
Income taxes						
Personal income tax	0.0	0.1	0.2	0.3	0.3	0.4
Corporate income tax	0.2	0.4	0.4	0.4	0.4	0.3
Non-resident income tax	0.0	0.0	0.0	0.0	0.0	0.0
Total income tax	0.2	0.5	0.7	0.7	0.7	0.7
Excise taxes/duties						
Goods and Services Tax	0.0	0.0	0.0	0.1	0.1	0.1
Custom import duties	0.0	0.0	0.0	0.0	0.0	0.0
Other excise taxes/duties	0.0	0.0	0.0	0.0	0.0	0.0
Total excise taxes/duties	0.0	0.0	0.0	0.0	0.1	0.1
EI premium revenues	0.0	0.0	0.0	0.0	0.0	0.0
Other revenues	0.0	0.0	0.0	0.1	0.1	0.1
Total budgetary revenues	0.2	0.6	0.7	0.8	0.8	0.8
Major transfers to persons						
Elderly benefits	0.0	0.0	0.0	0.0	0.0	0.0
Employment Insurance benefits	0.0	0.0	0.0	0.0	0.0	0.0
Children's benefits	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	0.1	0.1
Major transfers to other levels of government						
Canada Health Transfer	0.0	0.0	0.0	0.1	0.1	0.1
Canada Social Transfer	0.0	0.0	0.0	0.0	0.0	0.0
Equalization	0.0	0.0	0.0	0.0	0.1	0.1
Territorial Formula Financing	0.0	0.0	0.0	0.0	0.0	0.0
Gas Tax Fund	0.0	0.0	0.0	0.0	0.0	0.0
Home care and mental health	0.0	0.0	0.0	0.0	0.0	0.0
Other fiscal arrangements	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.1	0.1	0.2
Direct program expenses	0.0	0.1	0.1	0.1	0.1	0.1
Public debt charges	0.0	0.0	0.0	0.0	-0.1	-0.1
Total expenses	0.0	0.1	0.1	0.2	0.2	0.2
Budgetary balance	0.2	0.5	0.6	0.7	0.6	0.6

Source: Parliamentary Budget Officer.

Notes

1. See: <https://www.fin.gc.ca/pub/psf-ppf/2018/2018-09-eng.asp>.
2. On balance, the private sector outlook for WTI oil prices in the Fall Economic Statement is broadly in line with PBO's October 2018 outlook.
3. We assume that the decline in oil prices is largely driven by oversupply. Our simulation is based on the assumption that there is no monetary policy response. In addition, we assume a reduction in business and consumer confidence over the first six quarters of the shock consistent with the decline in oil prices from 2014 to 2016.
4. Current energy futures suggest the spread will remain around US\$21 per barrel by the end of 2019.
5. See: <https://www.internationalbudget.org/wp-content/uploads/IMF-Manual-on-Fiscal-Transparency.pdf>.
6. Fall Economic Statement 2018. See Annex 1 - Budget and Estimates Alignment: Greater Clarity on Government Spending: <https://budget.gc.ca/fes-eea/2018/docs/statement-enonce/anx01-en.html>.
7. The Government indicated that this new central vote in the Main Estimates "will include 100% of Budget 2018 incremental spending measures, improving Budget-Estimates alignment and eliminating some of the time lag between announcement and implementation of programs."

See Treasury Board of Canada Secretariat, 2018-19 Main Estimates <https://www.canada.ca/en/treasury-board-secretariat/services/planned-government-spending/government-expenditure-plan-main-estimates/2018-19-estimates/introduction.html#idchapter139078832>.
8. Supplementary Estimates (A) 2018-19. [https://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2018/Supps%20\(A\)%202018-19/2018-19%20Supplementary%20Estimates%20A_Final_EN.pdf](https://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2018/Supps%20(A)%202018-19/2018-19%20Supplementary%20Estimates%20A_Final_EN.pdf)
9. In accordance with the *Financial Administration Act*, the Government of Canada is mandated to publish the Public Accounts within nine months following the end of the fiscal year, or a maximum of 274 days after year end.
10. Eight provinces published their respective public accounts ahead of the federal public accounts, with seven of them publishing within six months. These provinces are: Alberta (June 28), Saskatchewan (July 19), Nova Scotia (July 26), New Brunswick (August 21, only Volume I), British Columbia (August 28), Ontario (September 21), Manitoba (September 21), and Newfoundland (October 11, excluding Volume II).
11. Alberta legislated the publication of their public accounts to be on or before June 30 in their *Fiscal Planning and Transparency Act*: <http://www.qp.alberta.ca/documents/Acts/f14p7.pdf>.
12. Or on average 208 days after the end of the fiscal year.

13. The data is sourced from OECD's International Budget Practices and Procedures Database (2012), available at:
<http://www.oecd.org/gov/budgeting/internationalbudgetpracticesandproceduresdatabase.htm>.
14. The International Monetary Fund's *Fiscal Transparency Handbook (2018)* provides international standards and guidelines for disclosure of information about public finances. For more information see:
<https://www.elibrary.imf.org/view/IMF069/24788-9781484331859/24788-9781484331859/front.xml>.
15. The data are available at: <http://survey.internationalbudget.org/#download>.